DOCUMENT RESUME

ED 111 511 PS 008 032

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TITLE Influence of Certain Clinical Variables on Black Preschoolers' Nonstandard Phonological and Grammatical Performance.
INSTITUTION Northwestern Univ., Evanston, Ill.
SPONS AGENCY National Inst. of Neurological Diseases and Stroke (NIH), Bethesda, Md.; Spencer Foundation, Chicago, Ill.
PUB DATE Apr 75
NOTE 27p.; A summary of this paper was presented at the biennial meeting of the Society for Research in Child Development (Denver, Colorado, Apr. 10-13, 1975)

EDRS PRICE MF-$0.76 HC-$1.95 Plus Postage
DESCRIPTORS Dialect Studies; Language Development; Language Patterns; Language Usage; *Negro Dialects; Negro Students; *Nonstandard Dialects; *Preschool Education; Racial Differences; Racial Factors; Racial Recognition; *Sex Differences; Social Dialects; Social Differences; *Socioeconomic Influences
IDENTIFIERS *Experimenter Characteristics

ABSTRACT

The influence of the socioeconomic background and sex of the child and the race of the clinician on the frequency of implementation of nonstandard phonological and grammatical structures was examined in 72 black 4-and 5-year-olds. In order to generalize findings to typical clinical settings, language samples were elicited by 3 black and 3 white clinicians using spontaneous, paragraph completion, and repetition procedures. Results indicated that socioeconomic status and sex had a strong effect on black children's usage of nonstandard phonological and grammatical forms. The data also suggested that the beginnings of a bi-dialectal capability were identifiable in certain speech forms in the clinical setting for black preschoolers. Discriminant analysis detailed those nonstandard phonological and grammatical forms which contributed to dialect differences between lower and middle socioeconomic black children. (Authors/ED)

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INFLUENCE OF CERTAIN CLINICAL VARIABLES ON BLACK PRESCHOOLERS' NONSTANDARD PHONOLOGICAL AND GRAMMATICAL PERFORMANCE

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PS 008032

Paper presented at the Society for Research in Child Development, Denver, Colorado, 1975.

008032

ABSTRACT

The influence of socioeconomic background, sex, and clinicians' race on the frequency of implementation of nonstandard phonological and grammatical structures was examined in 72 black preschoolers. In order to generalize findings to typical clinical settings language samples were elicited by 3 black and 3 white clinicians using spontaneous, paragraph completion, and sentence repetition procedures. Results showed that socioeconomic status and sex had a strong effect on black children's usage of nonstandard phonological and grammatical forms. More striking, data suggested that the beginnings of a bi-dialectal capability were identifiable in the clinical setting in four- and five-year-old black children. Discriminant analysis detailed those nonstandard phonological and grammatical forms which contributed to dialect differences between lower and middle-socioeconomic black children.

A number of investigators have reported nonstandard phonological, syntactic, and morphological forms in the language of most black-Americans (Stewart 1965, Bailey 1966, Baratz 1968, 1969a, 1969b, Houston 1969, 1970, Menyuk 1970, Fasold and Wolfram 1970, and Kernan 1971). While the literature has adequately detailed the typical form of black nonstandard English variations, it has become increasingly evident that speech and language specialists have little information concerning the influence of many social-clinical variables on the frequency with which black children apply nonstandard phonological and grammatical forms. These variables include: socioeconomic status, sex, age of children, race and sex of testing clinicians, method of stimulus presentation employed by a testing clinician, and environmental variables such as family size, and amount of environmental or cultural assimilation. Investigation of such clinical and environmental variables and their relation to nonstandard performance has been urged by Taylor (1971), Menyuk (1971), Stamps (1972), and Adler (1973).

Black-Americans typically use nonstandard English variations interspersed regularly with full form standard English productions (McCaffrey 1968, Taylor 1971, Light 1971, Kernan 1971, Ramer and Rees 1973, and Bachmann 1970). It is hypothesized that nonstandard forms vary systematically as a function of certain clinically relevent variables. A structural description of the relationship of standard and nonstandard forms should provide the speech and language clinician normative information, invaluable to identification of legitimate communicative disorder. Menyuk (1971) in her comprehensive review of the literature on dialect variation has indicated the need for comparative structural description of different social status groups of this sort. The following data was generated from a preschool-day-care screening activity carried out in Chicago, Illinois.

The study provides data regarding the influence of children's socioeconomic status and sex on the frequency of occurrence of nonstandard phonological and grammatical variations. Furthermore, the influence of clinicians' race on black preschoolers' nonstandard performance was examined. This variable is of critical importance to children's performance in many formal testing arrangements (Pasamanick and Knobloch 1955, Savage 1971, Marwit and Marwit 1973, Ratusnik and Koenigsknecht 1975a, among others).

METHOD

Subjects. The sample comprised 72 black, four and five-year-old children from racially homogeneous lower and middle-socioeconomic communities. Thirty-six subjects attended preschool and day-care centers in the Lawndale-Garfield Park (West Side) area of Chicago while 36 subjects went to preschools in the South Shore area of Chicago, Illinois. The socioeconomic ordering of the groups was accomplished using the Warner, Meeker, and Eells (1949) Social Status Index.

The two groups ranged in age from four years, three months to five years, six months with a mean age of four years, ten months. Each group consisted of 18 boys and 18 girls. All the children had normal hearing sensitivity (20 dB, ISO), had language and articulatory proficiency typical of children in their communities, and evidenced no unusual psychological or medical history. The children also achieved scores falling within normal limits on the non-verbal Columbia Mental Maturity Scale (1972) and Goodenough Drawing Test (1926) (Ratusnik and Koenigsknecht 1975b).

Black and White Testing Clinicians. Three black and 3 white female speech and language pathologists were trained in the testing procedures and carried out the data collection in the children's preschool and day-care centers.

Speech and Language Elicitation Tasks. Three elicitation tasks, developed for this investigation, were administered by the 6 clinicians: 1) spontaneous, 2) paragraph completion, and 3) sentence repetition. Three elicitation tasks were used so that the writers might generalize the children's responses to a typical clinical setting.

In the spontaneous task a subject was engaged in spontaneous dialogue with the clinician as colorful pictures and toys were presented. All 6 clinicians used the same conversational format and scoring form on the spontaneous speech task. In paragraph completion the subject finished the last phrase of a narrative story that was begun by the clinician. A target phonological or grammatical model was introduced in the paragraph portion of the task by the clinician, yet the child's response was not an immediate repetition of the verbal model. In the sentence repetition task the child repeated immediately the clinician's stimulus sentence. The sentences were four, five, and six words in length.

Elicitation Task Reliability and Standard Error.

Split-half reliability (Spearman-Brown Formula, Ferguson 1971) and standard error of measurement (SEM) were computed for the odd and even phonological and grammatical items for the three elicitation tasks. This procedure was employed on the data from each subject group. In the black lower-socioeconomic group the spontaneous elicitation task had a reliability of 0.50 (SEM = 0.05) for phonological items and 0.49 (SEM = 0.06) for the grammatical items while the spontaneous task odd-even reliability for the black middle-socioeconomic group was 0.92 (SEM = 0.04) for phonological items and 0.92 (SEM = 0.04) for the grammatical items. In the black lower-socioeconomic group the paragraph completion task had a reliability of 0.75 (SEM = 2.00) for phonological items and 0.56 (SEM = 1.45) for grammatical items. Split-half coefficients of 0.89 (SEM = 2.06) for phonological items and 0.85 (SEM = 0.83) for the grammatical items were obtained from the responses by the black middle-socioeconomic children.

In the lower-socioeconomic group the responses to phonological items yielded coefficients of 0.93 (SEM = 2.53) for phonological items and 0.92 (SEM = 1.59) for grammatical items on the sentence repetition task. On this task the middle-socioeconomic group obtained a split-half coefficient of 0.97 (SEM = 3.25) for phonological items and 0.90 (SEM = 1.49) for grammatical items.

Dependent Language Measures. The three tasks were developed to sample, in a systematic fashion, children's nonstandard performance in nine phonological and three grammatical dependent categories. The measures chosen for study represent a major portion of the black dialectal variations previously identified by Fasold and Wolfram (1970) in Detroit, Stamps (1972) in Cleveland, Labov (1968) in New York City, and Kernan (1971) in Oakland.

The phonological categories (standard full form) under study included: 1) postvocalic consonant clusters /nd/, /nt/, /st/, /ŋk/; 2) postvocalic /r/,/ɚ/; 3) postvocalic /l/; 4) postvocalic /θ/; 5) prevocalic and intervocalic /θ/; 6) prevocalic, intervocalic, and postvocalic /v/; 7) prevocalic /ð/; 8) intervocalic and postvocalic /ʒ/; and 9) the vowel /æ/ in the negative "can't." The grammatical categories under study included: 1) copula is in noun, adjective, and locative settings, in addition to auxiliary is in present progressive settings (i.e., is + verb + ing); 2) negative constructions; and 3) third person singular morphological markers.

Test Administration and Scoring Procedure. Each of the 6 clinicians tested an equal number of children, boys and girls, from each subject group. The sequence in which the children were seen by the clinicians was determined by random-order procedures while the three speech elicitation tasks were administered in a counter-balanced fashion. The clinicians presented all verbal stimuli in standard English form. All responses were recorded on Scotch Brand 1.5 MIL

tape using an Ampex AC600b-2 partable tape recorder in this field experiment.

Two speech and language clincians transcribed and classified the tape recorded speech sound or grammatical variations, in each dependent category, as either a black nonstandard English construction (BNE) or a standard English full form utterence (SE) for each of the 72 children. The percentage of BNE productions for each phonological and grammatical category was computed. The 517 items for each child yielded a sample in excess of 37,000 scorable responses by the children.

RESULTS

A separate 2 x 2 x 2 multivariate analysis of variance (Socioeconomic Grouping by Sex of Subject by Race of Clinician) was employed for the composite nonstandard phonological and the composite nonstandard grammatical measures (Winer 1962).

Phonological Measures. The multivariate analysis of variance revealed a significant effect for the Socioeconomic Grouping ($F = 63.33$; $p < .001$) and Sex of Subject ($F = 1.93$; $p < .05$) factors. Although not statistically significant ($F = 1.69$; $p = .09$) there were some differences in the percentage of nonstandard phonological productions elicited by the black and white clinicians.

Univariate analyses of variance, one for each phonological measure, displayed significantly higher nonstandard phonological usage for lower-socioeconomic than middle-socioeconomic black preschoolers ($p < .001$). This resulted as the middle-socioeconomic children interspersed the standard full form more often than their lower-socioeconomic counterparts in their speech sound productions. The percentage of nonstandard speech sound productions and standard deviations for each group are displayed in Table 1. It is important to note that while

the middle-socioeconomic children used the standard full form more frequently than the lower-socioeconomic children, these children used a characteristic nonstandard phonological patterning. Moreover, the standard full form was never completely absent in the lower-socioeconomic children. The typical form of nonstandard phonological productions is detailed in a later section.

Table 1 Insert

[illegible] typical [illegible] /kout/ for /k ut/. Inspection of Table 1 reveals that boys used higher percentages of nonstandard forms than girls in the lower socioeconomic group. In this group, for seven of nine speech sound categories, boys evidenced greater nonstandard usage than girls. Only for the prevocalic, intervocalic, and postvocalic /v/ plus intervocalic, postvocalic /ɹ/ measures did girls evidence higher nonstandard performance than boys. In the black middle-socioeconomic group no consistent trend in nonstandard speech sound usage emerged between boys and girls. In five of nine speech sound categories; postvocalic consonant clusters, postvocalic /θ/, prevocalic and intervocalic /θ/, intervocalic and postvocalic /ð/, and the /ɑ/ vowel measure, boys evidenced higher percentages of nonstandard forms than girls.

Table 2 Insert

The preschoolers in the middle-socioeconomic group demonstrated some difference in nonstandard phonological usage when tested by black and white clinicians. Although the specified .05 level of confidence was not reached with the multivariate analysis ($p = .09$), the middle-socioeconomic children

evidenced more nonstandard speech sound productions on seven of nine phonological measures with black rather than white clinicians. Only on the prevocalic /ʒ/ and the prevocalic, intervocalic /θ/ measures were higher percentages of nonstandard forms noted with white clinicians. As shown in Table 3, the lower-socioeconomic group also used a higher percentage of nonstandard forms, in six of nine phonological categories, in the same-race clinical setting.

Table 3 Insert

Grammatical Measures. The multivariate analysis of variance displayed a significant effect for the Socioeconomic Grouping comparison ($F = 53.70$; $p < .001$). Again, as with the phonological measures, the lower-socioeconomic preschoolers evidenced far more nonstandard grammatical forms than the middle-socioeconomic group. The three univariate analyses of variance for the grammatical measures were significant beyond the .001 level. The means and standard deviations of nonstandard grammatical usage are shown in Table 4. Although differences are evident in the mean scores for nonstandard grammatical usage by boys and girls (Table 5), the Sex of Subjects analysis failed to reach significance ($F = 2.22$; $p = .08$). Boys displayed greater nonstandard grammatical usage in both groups. Five of the six mean comparisons show more frequent implementation of nonstandard grammatical forms by males. No tendency toward higher nonstandard grammatical usage with either black or white clinicians was demonstrated in the multivariate comparison ($F < 1.00$; ns).

Table 4 and 5 Insert

Discriminant Analysis Between Social Status Groupings

A major consideration in this study was whether black children from low and middle social status backgrounds present similar or dissimilar black English dialect characteristics. Above, multivariate analyses of variance

revealed that lower-socioeconomic children are characteristically more nonstandard than middle-socioeconomic children on both the phonological and grammatical components of language. More specifically, a discriminant analysis (Nie, Bent, and Hull 1970) enables one to assess the contribution of each of twelve dependent language measures operating together to the over-all between group dialect difference. Previous analyses presented in the literature have failed to assess the contiguous contribution of nonstandard forms in identifying social status differences in black children. This more efficient procedure more accurately represents the multidimensional nature of the linguistic system. Table 6 displays in a step-wise fashion the relative contribution of the twelve dependent measures to the structural difference between lower and middle-socioeconomic black nonstandard English. Seven of twelve measures were shown to be significant contributors to dialect difference; /ɔ/ vowel, prevocalic /ð/, postvocalic /l/, third person singular markers, postvocalic /θ/, prevocalic, intervocalic, and postvocalic /v/ and postvocalic /r//ɚ/.

Table 6 Insert

Nonstandard Structural Descriptions. This sections presents the structural forms of nonstandard productions evidenced by the two black groups.

Postvocalic Consonant Clusters. Simplification of postvocalic consonant clusters is a frequently occuring nonstandard form (Labov 1968). Preschoolers evidenced two patterns of simplification: a) deletion of the final consonant element, e.g., /læs/ for last, or b) deletion of both consonant cluster elements, /læ/ for last. The lower-socioeconomic group employed simplification of the

final element 87% of the time while both aspects of the cluster were deleted in the remaining (13%) nonstandard productions. The final element of the cluster was deleted 92% of the time while both portions were deleted 8% of the time in the middle-socioeconomic children's nonstandard productions. In both groups the consonant cluster form most frequently simplified was /nd/ followed by /st/, /nt/, and /ŋk/ respectively (e.g., /fæs/ for fast, /frɛn/ for friend, /ɛləfən/ for elephant, /θæŋ/ for thank).

Postvocalic /l/. The most consistent nonstandard form used by the lower-socioeconomic preschoolers was the centralized /ə/ for postvocalic /l/ (89%). In some environments the lip-rounded /u/ (6%) and /o/ (4%) forms were observed. Similarly, the middle-socioeconomic children employed the central /ə/ form in 90% of their nonstandard reductions. The /u/ and /o/ reductions were each observed approximately 5% of the time. Typical examples are /baə/ for ball, /badə/ for bottle, and /təɪdə/ for turtle.

Postvocalic /r//ɚ/. Analyses revealed a higher incidence of nonstandard reduction in syllabic /ɚ/ (63%) than consonantal /r/ (37%) settings in lower-socioeconomic children. The central /ə/ was the most consistently (91%) implemented nonstandard form. The judges did, however, note the /u/ and /o/ reductions. The middle-socioeconomic children also displayed a greater tendency toward nonstandard reductions on the /ɚ/ (66%) than /r/ (24%) items. In approximately 90% of the nonstandard productions the central /ə/ was used yet the lip-rounded vowels were also evident (e.g., /hʌmʌ/ for hammer, /mʌdə/ for mother, /sʌpʌ/ for supper, /diə/ for deer).

Postvocalic /θ/. Three nonstandard forms were used by the preschoolers on postvocalic /θ/ items; /f/, /t/, and deletion. In lower-socioeconomic children /f/ was used in 85% of the nonstandard instances while deletion and /t/ for postvocalic /θ/ was noted 12% and 3% of the time respectively. Similarly, middle-socioeconomic children used nonstandard /f/ 76% of the time while deletion

and /t/ for postvocalic /θ/ occured 22% and 2% of the time (e.g., /tif/ for teeth, /bof/ for both, /bæf/ for bath, /bot/ for both).

Prevocalic and Intervocalic /θ/. The lower-socioeconomic preschoolers used four nonstandard forms in this phonological category; /t/, /d/, /f/, and /s/. Eighty-four percent /t/ for prevocalic /θ/, 12% /d/ for prevocalic /θ/, and 4% /f/ for prevocalic /θ/ items were noted in the lower-socioeconomic group. On the intervocalic /θ/ items the /t/ nonstandard form occured 82% of the time, /d/ 17% of the time and /s/ 1% of the time. In the middle-socioeconomic group the /t/ for prevocalic /θ/ was noted in 80% of the nonstandard productions while /d/ (18%) and /f/ (2%) were observed less frequently. The nonstandard forms for intervocalic /θ/ items were less consistent in the middle-socioeconomic black preschoolers than the lower-socioeconomic group; /t/ (57%), /d/ (40%), and /s/ (3%). Representitive examples are: /tɪn/, /dɪn/ or /fɪn/ for thin, /tɪŋk/ for think, /ɛnitɪŋ/ or /ɛnidɪŋ/ for anything and /fɑt/ for thought.

Prevocalic, Intervocalic, Postvocalic /v/. Two consistent nonstandard forms were noted in preschoolers' formulations; a) /b/ for /v/, for example; /bælɛntaɪn/ for valentine, /baɪolɪn/ for violin, /sɛbən/ for seven, and b) deletion of /v/, for example, /faɪ/ for five and /draɪ/ for drive. In the lower-socioeconomic group 100% of the prevocalic nonstandard forms were /b/ for /v/ (e.g., /bækumklinə/ for vacuum cleaner). Both nonstandard /b/ and deletion were noted for intervocalic /v/ items. Eighty-two percent of the time /b/ for /v/ was employed while 18% of the time the /v/ was deleted by the preschoolers (e.g., /sɛbən/ for seven, /tibi/ for t.v.). In postvocalic position, /v/ was consistently deleted (85%). For example, /faɪ/ was used for five, /mu/ for move and /sto/ for stove. The remaining nonstandard forms in lower-socioeconomic children took the /b/ for /v/ form (e.g., /stob/ for stove). Middle-socioeconomic children also used nonstandard /b/ for prevocalic /v/ items exclusively. On

intervocalic /v/ items the children encoded /b/ for /v/ in 96% of their nonstandard utterences. Only 4% of the nonstandard forms were deletions. Also, on postvocalic /v/ items 88% of the nonstandard forms were deletions while 12% were /b/ for /v/ formulations.

Prevocalic /ð/. Nonstandard production of prevocalic /ð/ items took one form in both preschool groups; /d/ for /ð/. Representitive examples are: /də/ for the, /dɛm/ for them, /dɛn/ for then, /dɛr/ for their and /doz/ for those.

Intervocalic, Postvocalic /ð/. Three nonstandard dialect forms were observed; /d/ or /v/ for intervocalic and postvocalic /ð/ items in addition to a deletion of /ð/. Ninety-eight percent of the lower-socioeconomic group's nonstandard forms for intervocalic /ð/ items took the apical /d/ form (e.g., /fadə/ for father, /ə də/ for other). Nonstandard performance on postvocalic /ð/ items was not similarly consistent as 52% of the formulations were /v/ for /ð/ while 47% were deletions. Typical examples are /smuv/ or /smu/ for smooth. Less than 1% of the time /d/ was noted in postvocalic /ð/ items, for example, /smud/ for smooth. The middle-socioeconomic children used the nonstandard /d/ 88% of the time and /v/ 12% of the time in their nonstandard productions for intervocalic /ð/ items. Usage of /v/ for postvocalic /ð/ items was observed in 68% of the nonstandard forms while the deleted form was also evidenced frequently (30%). The apical /d/ for postvocalic /ð/ was evidenced in 2% of the nonstandard productions.

/æ/ Vowel. Nonstandard production for /æ/ took one form; /e/ for /æ/. For example,/kent/ was regularly used for can't.

Negation. Children's nonstandard responses to three negative forms are presented: doesn't, isn't, and didn't. In the lower-socioeconomic group /don/ or don't for doesn't items occured over 78% of the time (e.g., She don't want any food). Double negative forms were used 10% of the time in nonstandard con-

structions for doesn't items (e.g., She don't eat no food, He don't get no more). The same children consistently used ain't on the negative isn't items (e.g., It ain't big, He ain't my friend). For approximately 27% of the nonstandard isn't formulations double negative constructions were employed. Typical examples were; He ain't no baby, It ain't no good. Children's nonstandard responses were also analyzed for didn't items. Over 53% of the nonstandard constructions took the form not for didn't, for example, He not go, or She not go. Approximately 21% of the didn't items were formulated in double negative form (e.g., He didn't want no food, I didn't bring no toys). The middle-socioeconomic black children employed either /don/ or don't on 89% of the nonstandard doesn't constructions while 10% of their formulations took the double negative form. Furthermore, ain't for isn't was used in 90% of their nonstandard productions. Only 4% double negagive forms were used for isn't items. In 70% of the nonstandard negative constructions don't was used rather than didn't (e.g., Mommy don't see me today, for Mommy didn't see me today).

Third Person Singular. In both groups only one type of nonstandard morphological form was evident; zero marking. In each nonstandard instance the /-s,-z/ verb marker was not noted by the judges (e.g., He run fast, for He runs fast, She eat her food, for She eats her food).

Copula or Auxiliary is. In both groups the zero copula or auxiliary form was the single recognized nonstandard form. All contracted forms of the verb fell within the standard English category.

DISCUSSION

For those phonological and grammatical measures examined, black preschool children from lower and middle-socioeconomic backgrounds used both nonstandard and standard English formulations concurrently in their spontaneous, paragraph

completion, and sentence repetition task responses. While the middle-socioeconomic preschoolers evidenced fewer nonstandard phonological and grammatical constructions than the lower-socioeconomic group, their primary dialect was black nonstandard English. The middle-socioeconomic children more often interspersed the coexisting standard English form in their nonstandard code, possibly as a result of more frequent contacts with white standard English speaking adults in Chicago's South Shore community. Alternately, parents of children from the middle-socioeconomic group may emphasize those language forms, standard English, which they feel do not hinder upward social, educational, and economic mobility in their children. The difference in percentage of usage of nonstandard variations between the lower and middle-socioeconomic groups was striking as the analyses for the phonological and grammatical measures displayed significantly higher nonstandard usage in lower-socioeconomic children. It is not suggested, however, that there is only one lower or middle-socioeconomic black dialect, only that social status differences influence black nonstandard speakers in most metropolitan settings. Also, it is proposed that the group data presented is sufficiently comprehensive to be directly applicable for preschool screening or in depeth speech and language assessment activities.

Sex influenced the frequency of usage of nonstandard forms on the phonological structures sampled. Although not statistically significant ($p = .08$), boys used more nonstandard grammatical forms than girls. Inspection of Tables 2 and 5 revealed that while boys employed substantially more nonstandard phonological and grammatical constructions than girls, this effect was most noticeable in black lower-socioeconomic preschoolers.

Research has shown that children become conscious of racial differences in others as early as three years of age in lower and middle-socioeconomic black communities (Clark and Clark 1939, Landreth and Johnson 1953, Goodman 1966, and Williams and Stabler 1973). Prerequisite to the establishment of a

code-switching capability with clinicians of another race, children must become aware of and be able to distinguish salient racial and also personal characteristics in testers. It has been assumed that bidialectalism is established about the time the child is eleven years of age (Houston 1970). Undoubtedly, code-switching may be dramatically displayed at this age. Older children should exert greater control over their language style in various situational contexts than younger children. The speech sound data from this study suggest, however, that black children in later preschool years display the first signs of altering their linguistic codes in light of their perceptions of racial differences in black and white female clinicians. Both middle and lower-socioeconomic children used a higher percentage of nonstandard phonological constructions with black rather than white clinicians. It is likely that bidialectalism is a progressively established verbal skill, the development of which is influenced by factors such as linguistic experience, socioeconomic status, communal and parental standards of speech, family size, and frequency or intent of adult-child interactions. While the lower-socioeconomic children displayed more nonstandard forms with black than white female clinicians, the code-switching effect was more pronounced in the middle-socioeconomic group from Chicago's South Shore. It is likely that parental cultivation of a bidialectal style of speech, made possible by a smaller family constellation which allows greater amounts of time for teaching children, accounts for the more pronounced code-switching in middle-socioeconomic black preschoolers. Also, more frequent exposure to white standard English models in the middle-socioeconomic black community may exert an influence on the children's learning different speech styles.

In summary, for those measures examined, socioeconomic status and sex of the child influenced black preschool children's nonstandard language performance. More striking, the beginnings of a bidialectal capability may be identifiable for certain speech sound forms in four- and five-year-old black children.

ACKNOWLEDGMENT

A summary of this paper was presented at the biennial meeting of the Society for Research in Child Development, Denver, Colorado, 1975. The authors wish to thank Charlene Chiney, Maureen Foy, Jovita Martin, Sylvia Mayworm, Mavis Mitchell, and Carol Ratusnik for testing the preschoolers in this study. We also wish to acknowledge the financial assistance provided by research grant No. 2680-265-05, under the Spencer Foundation Northwestern University Program for Interdisciplinary Research in Education. Support was also provided by the National Institutes of Neurological Diseases and Stroke, No. NS05420-11.

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TABLE 1. MEANS AND STANDARD DEVIATIONS OF NONSTANDARD PHONOLOGICAL USAGE FOR LOWER AND MIDDLE-SOCIOECONOMIC BLACK PRESCHOOLERS.

GROUPS	PHONOLOGICAL MEASURES								
	Consonant Clusters	Post-vocalic /l/	Post-vocalic /r/ /ɝ/	Post-vocalic /θ/	Pre and Inter-vocalic /θ/	Pre, Inter and Post-vocalic /v/	Prevocalic /ð/	Inter and Post-vocalic /ə/	Vowel /æ/ in "can't"
BLSES									
$\bar{X}$	78.89	88.04	86.88	96.37	66.06	48.79	74.59	75.16	70.29
SD	11.12	13.87	13.08	7.82	22.43	23.92	19.25	27.81	29.62
BMSES									
$\bar{X}$	53.29	55.70	53.63	74.86	40.10	21.41	39.25	51.39	16.19
SD	23.66	26.24	24.31	27.86	28.99	19.35	21.71	32.78	28.19

TABLE 2. MEANS AND STANDARD DEVIATIONS OF NONSTANDARD PHONOLOGICAL USAGE FOR BOYS AND GIRLS FROM THE LOWER AND MIDDLE-SOCIOECONOMIC BLACK GROUPS.

GROUPS (Boys and Girls)	PHONOLOGICAL MEASURES								
	Consonant Clusters	Post-vocalic /l/	Post-vocalic /r/ /ɚ/	Post-vocalic /θ/	Pre and Inter-vocalic /θ/	Pre, Inter and Post-vocalic /v/	Prevocalic /ð/	Inter and Post-vocalic /ð/	Vowel /æ/ in "can't"
BLSES									
Boys									
$\bar{X}$	79.54	89.99	88.54	97.36	66.97	48.45	78.39	73.69	70.04
SD	11.63	13.23	11.89	6.03	23.62	22.92	18.00	29.12	23.66
Girls									
$\bar{X}$	78.24	86.10	85.21	95.38	65.14	49.13	70.60	76.64	61.55
SD	10.66	14.34	14.10	9.22	21.36	25.09	19.79	26.63	32.50
BMSES									
Boys									
$\bar{X}$	54.63	55.00	52.70	78.53	41.52	18.55	38.91	52.91	20.63
SD	22.91	26.40	25.71	25.47	26.13	18.19	22.04	32.96	32.21
Girls									
$\bar{X}$	51.95	56.40	54.57	71.18	38.67	24.27	39.59	49.87	11.75
SD	24.54	26.31	23.03	29.84	31.77	20.20	21.57	32.83	22.96

TABLE 3. MEANS AND STANDARD DEVIATIONS OF NONSTANDARD PHONOLOGICAL USAGE BY LOWER AND MIDDLE-SOCIOECONOMIC BLACK PRESCHOOLERS TESTED BY BLACK OR WHITE CLINICIANS.

GROUPS (Black and White Clinicians)	PHONOLOGICAL MEASURES								
	Consonant Clusters	Post-vocalic /l/	Post-vocalic /r/ /ɚ/	Post-vocalic /θ/	Pre and Inter-vocalic /θ/	Pre, Inter and Post-vocalic /v/	Prevocalic /ð/	Inter and Post-vocalic /ð/	Vowel /æ/ in "can't"
BLSES									
Black Clinicians									
$\bar{X}$	80.22	91.64	87.27	96.99	65.78	44.13	71.26	75.75	72.82
SD	11.07	11.28	12.10	7.27	22.68	24.12	20.66	28.01	28.83
White Clinicians									
$\bar{X}$	77.57	84.45	86.48	95.75	66.34	53.46	77.92	75.57	67.77
SD	11.12	15.33	14.10	7.94	22.40	22.99	17.28	27.87	30.45
BMSES									
Black Clinicians									
$\bar{X}$	57.60	55.76	53.97	75.01	39.90	21.70	38.25	59.03	17.83
SD	21.76	25.63	23.53	28.13	30.60	17.06	20.76	32.99	28.97
White Clinicians									
$\bar{X}$	48.98	55.64	53.30	74.70	40.29	21.13	40.25	43.76	14.55
SD	24.88	27.07	25.29	27.85	27.57	21.55	22.77	31.02	27.57

TABLE 4. MEANS AND STANDARD DEVIATIONS OF NONSTANDARD GRAMMATICAL USAGE FOR LOWER AND MIDDLE-SOCIOECONOMIC BLACK PRESCHOOLERS.

GROUPS	GRAMMATICAL MEASURES		
	Copula and Auxiliary *is*	Negation	Third Person Singular
BLSES			
$\bar{X}$	45.40	48.19	72.11
SD	28.90	26.17	24.16
BMSES			
$\bar{X}$	15.94	21.44	30.14
SD	16.18	20.43	26.97

TABLE 5. MEANS AND STANDARD DEVIATIONS OF NONSTANDARD GRAMMATICAL USAGE FOR BOYS AND GIRLS FROM THE LOWER AND MIDDLE-SOCIOECONOMIC BLACK GROUPS.

GROUPS (Boys and Girls)	GRAMMATICAL MEASURES		
	Copula and Auxiliary *is*	Negation	Third Person Singular
BLSES			
Boys			
$\bar{X}$	48.53	53.23	72.43
SD	30.97	26.07	24.62
Girls			
$\bar{X}$	42.28	43.15	71.79
SD	26.60	25.51	23.93
BMSES			
Boys			
$\bar{X}$	16.50	22.87	27.45
SD	14.29	22.75	26.81
Girls			
$\bar{X}$	15.38	20.00	32.83
SD	18.00	17.91	27.11

TABLE 6. DISCRIMINANT ANALYSIS BETWEEN LOWER AND MIDDLE-SOCIOECONOMIC BLACK PRESCHOOLERS' NONSTANDARD LANGUAGE PERFORMANCE.

Step Number	Dependent Language Measure	F[1]
1	/ɔ/ vowel	188.10**
2	prevocalic /ɚ/	77.64**
3	postvocalic /l/	52.33**
4	third person singular /s/ /z/	7.74**
5	postvocalic /θ/	7.55*
6	pre, inter, postvocalic /v/	5.55*
7	postvocalic /r//ɚ/	4.97*
8	consonant clusters	1.02
9	negation	$<$ 1.00
10	copula-auxiliary is	$<$1.00
11	pre, inter-vocalic /θ/	$<$1.00
12	inter, postvocalic /ɚ/	$<$1.00

** $p < .01$

* $p < .05$

[1] The partial multivariate F ratio expresses the discrimination added by each successive language measure, each F taking into account the influence of the other variables.

APPENDIX

The paragraph completion task consisted of 56 easily completed, open-ended paragraphs with colorful matching pictures while the sentence repetition task was made up of 108 sentences, four, five, and six words in length. The following are examples from those tasks.

Paragraph Completion Task: (Stimulus Paragraph)	Standard English Full Form of Scored Responses
I see Fido the dog. Fido ate the ball. The dog ate (the ball).	Prevocalic /ð/ Postvocalic /l/
She is my mother. She makes dinner. The woman is mother. The lady (is mother).	Copula is in Noun Setting Intervocalic /ð/ Postvocalic /z/
Look at Carol. The dog bites Carol. Yes, the dog bites people. People must be careful because the dog (bites people).	Third Person Singular Marker Postvocalic /l/
Sentence Repetition Task: (Stimulus Sentence)	
Mother is very thin.	Copula is with Adjective Prevocalic /θ/ Prevocalic /v/
He isn't the last.	Negative (isn't) Prevocalic /ð/ Postvocalic /st/
Mother is in the hall.	Copula is with Locative Prevocalic /ð/ Postvocalic /l/
Ed doesn't like to swim.	Negative (doesn't)
The baby sits in the chair.	Third Person Singular Marker Postvocalic /r/